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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,416	11/20/2003	Jury Peter Locker	2003-1655A	5543
513	7590	12/10/2004	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P.			EDWARDS, ANTHONY Q	
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SUITE 800			PAPER NUMBER	
WASHINGTON, DC 20006-1021			2835	

DATE MAILED: 12/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/716,416

Applicant(s)

LOCKER, JURY PETER

Examiner

Anthony Q. Edwards

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 49 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,170,195 to Akiyama et al. (“Akiyama” hereinafter). Akiyama discloses a casing (12) for electronic components including a frame (12a), wherein said frame has a passage (18) arranged therein with a cooling liquid (40) in said passage, and wherein said frame (12a) itself forms said passage (185) for said cooling fluid (40). See Figs. 3, 4 and 14, as well as col. 4, lines 10-25.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 28-48 and 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyama in view of U.S. Patent No. 6,055,156 to von Gutfeld. Referring to claim 28, Akiyama discloses a casing (12) having a display (40) which is bordered by a frame (12a), wherein said frame has a passage (18) arranged therein with a cooling liquid (40) in said passage, and wherein

Art Unit: 2835

said frame (12a) itself forms said passage (185) for said cooling fluid (40). See Figs. 3, 4 and 14, as well as col. 4, lines 10-25. Akiyama does not teach the casing as part of a computer having the display. The invention disclosed in the patent to von Gutfeld teaches providing a casing (40) having a display (3) as part of a portable computer system. See Figs. 3 and 4 and the corresponding specification.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the casing having a display of Akiyama, so that it is part of a computer system, as taught by von Gutfeld, since the device of von Gutfeld would allow the cooling display of Akiyama to be utilized in a variety of systems that require cooling, including the cooling of portable or handheld computers.

Referring to claim 29, Akiyama in view of von Gutfeld disclose a computer, wherein said passage (18) extends around said frame (12a). See Figs. 3 and 4 of Akiyama.

Referring to claim 30, Akiyama in view of von Gutfeld disclose a computer, wherein said frame is of a single-wall configuration. See Fig. 4 of Akiyama.

Referring to claim 31 and 32, Akiyama in view of von Gutfeld disclose the computer as claimed. Although Akiyama in view of von Gutfeld does not specifically disclose the frame being made by an extrusion process or the entire casing being made by an extrusion process, respectively, it would have been obvious to one of ordinary skill in the art at the time of the invention to make both the frame and entire casing process from an extrusion, since it has been held that, even though the claims are limited by and defined by the recited process, the determination of patentability of the product is based on the product itself, and does not depend on its method of production. If the product in the product-by-process claim is the same as or

Art Unit: 2835

obvious from a product of the prior art, the claim is unpatentable even though the prior art was made by the different process. *See In re Thorpe*, 227 USPQ 964, 966 (*Fed. Cir. 1985*).

Referring to claim 33, Akiyama in view of von Gutfeld disclose a computer, wherein said casing (12) comprises outwardly projecting cooling ribs (13a). See Figs. 3 and 4 of Akiyama.

Referring to claim 34 and 35, Akiyama in view of von Gutfeld disclose a computer, wherein cooling ribs (19) are arranged on said casing (12) that project into the interior of said casing and wherein cooling ribs are arranged on at least part of the inside of said passage (18), respectively. See Fig. 3 of Akiyama.

Referring to claim 36, Akiyama in view of von Gutfeld disclose a computer, wherein connecting portions (25) which project into the interior of said casing (12) are provided on said passage (18) in fluid communication with said passage. See Fig. 16 and col. 5, lines 57-60 of Akiyama.

Referring to claim 37, Akiyama in view of von Gutfeld disclose a computer as claimed, except for having exactly two connecting portions. It is well known, however, that a mere duplication of the essential working parts of a device involves only routine skill in the art (see MPEP 2144.04; *In re Harza*, 274 F.2d 669, 124 USPQ 378 CCPA 1960)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the computer of Akiyama to include exactly two connecting portions on the casing, so that a user can have separate connecting portions for ingress and egress of the fluid.

Referring to claim 38, Akiyama in view of von Gutfeld disclose a computer as claimed, except for specifically teaching a respective one of said two connecting portions being is arranged at each of a top-side and an underside of said frame. It is well known, however, in the

Art Unit: 2835

art of liquid-cooling systems to rearrange parts where needed (see *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950)). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the device of Akiyama, such that the two connecting portions are arranged at the top-side and the underside of the frame, respectively, since this would allow for gravity assisted flow of the fluid within the system.

Referring to claim 39, Akiyama in view of von Gutfeld disclose a computer, further comprising a fluid-conducting communication (18) between said passage, see Figs. 3 and 5 of Akiyama, and at least one heat exchanger (43) on the interior of said casing (40), see Fig. 3 of von Gutfeld.

Referring to claim 40, Akiyama in view of von Gutfeld disclose a computer, wherein the fluid-conducting communication (18) comprises a hose. See Fig. 5 of Akiyama.

Referring to claim 41, Akiyama in view of von Gutfeld disclose a computer, wherein said computer comprises a CPU (41) having one of said at least one heat exchanger (43) arranged thereat. See Fig. 4 of von Gutfeld.

Referring to claim 42, Akiyama in view of von Gutfeld disclose a computer, further comprising at least one pump (60) arranged to circulate the cooling fluid in said passage. See Fig. 5 and the corresponding specification of Akiyama.

Referring to claim 43, Akiyama in view of von Gutfeld disclose a computer, wherein the cooling fluid is a liquid. See col. 3, lines 18-20 of Akiyama.

Referring to claim 44, Akiyama in view of von Gutfeld disclose a computer as claimed, except for utilizing water as the cooling fluid. It is notoriously old and well known in the art of liquid-cooling systems to utilize water the cooling fluid for the system. It would have been

Art Unit: 2835

obvious to one of ordinary skill in the art at the time the invention was made cool the computer of Akiyama, as modified, with water as the cooling fluid, since water is readily available, inexpensive, and it a good thermodynamic coolant.

Referring to claim 45, Akiyama in view of von Gutfeld disclose a computer as claimed, except for utilizing distilled water as the cooling fluid. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize distilled water as the cooling fluid, since it has been held to be within the general skill of the worker in the art to select a known material on the basis that it's more pure than another like material. The mere purity of a product or material, by itself, does not render the product unobvious. See *Ex parte Gray*, 10 USPQ2D 1922 (Bd. Pat. App. & Inter 1989).

Referring to claim 46, Akiyama in view of von Gutfeld disclose a computer as claimed, except for the display being a touch display. Official Notice is taken that is well known in the art of computer displays to utilize touch screen displays for input of data. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a touch screen display as the input device of Akiyama, as modified, since a touch screen display is a very popular type of input device in computer systems.

Referring to claim 47, Akiyama in view of von Gutfeld disclose a computer as claimed, as well as inherently providing a method of cooling electronic components in the computer, comprising circulating said cooling fluid in said passage of said frame (see Fig. 1 of Akiyama), and passing said cooling fluid from said passage through a fluid-conducting communication into the interior of said casing (40) so as to cool at least one electronic component (41) in said casing, see Fig. 4 of von Gutfeld.

Art Unit: 2835

Referring to claim 48, Akiyama in view of von Gutfeld disclose the method as claimed, wherein the at least one electronic component that is cooled by said passing is a CPU. See Fig. 4 of von Gutfeld.

Referring to claim 50, Akiyama in view of von Gutfeld disclose a computer as claimed, wherein the casing is a computer casing. See Figs. 3 and 4 of von Gutfeld.

Referring to claim 51, Akiyama in view of von Gutfeld disclose a computer (see Figs. 3 and 4 of von Gutfeld) comprising a display (40), a casing (12) having a frame (12a) which surrounds said display, and a passage (18) in said frame and a cooling fluid in said passage, wherein said frame itself forms said passage for said cooling fluid such that said passage at least partly extends around the outer periphery of said display. See Figs. 3 and 4 of Akiyama.

Referring to claim 52, Akiyama in view of von Gutfeld disclose a computer as claimed, wherein a CPU (41) of the computer is provided inside the casing. See Fig. 4 of von Gutfeld.

Response to Arguments

Applicant's arguments with respect to claim 28-52 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patent No. 6,256,083 to Numata et al. disclose a LCD apparatus and optical device for use therein having holding member with a space filled up with a cooling medium.

Art Unit: 2835

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Q. Edwards whose telephone number is 571-272-2042. The examiner can normally be reached on M-F (7:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2800, ext. 35. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2835

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 6, 2004

aqe

A handwritten signature in black ink, appearing to read 'L. Feild', is positioned above the printed name.

LYNN FEILD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800